Distributed by:

JAMECO® ELECTRONICS

www.Jameco.com ✦ 1-800-831-4242

The content and copyrights of the attached material are the property of its owner.

MEAN WELL

SWITCHING POWER SUPPLY

ISO-9001 CERTIFIED MANUFACTURER

SP-300 SERIES

Jameco Part Number 137390 (SP-300-12)

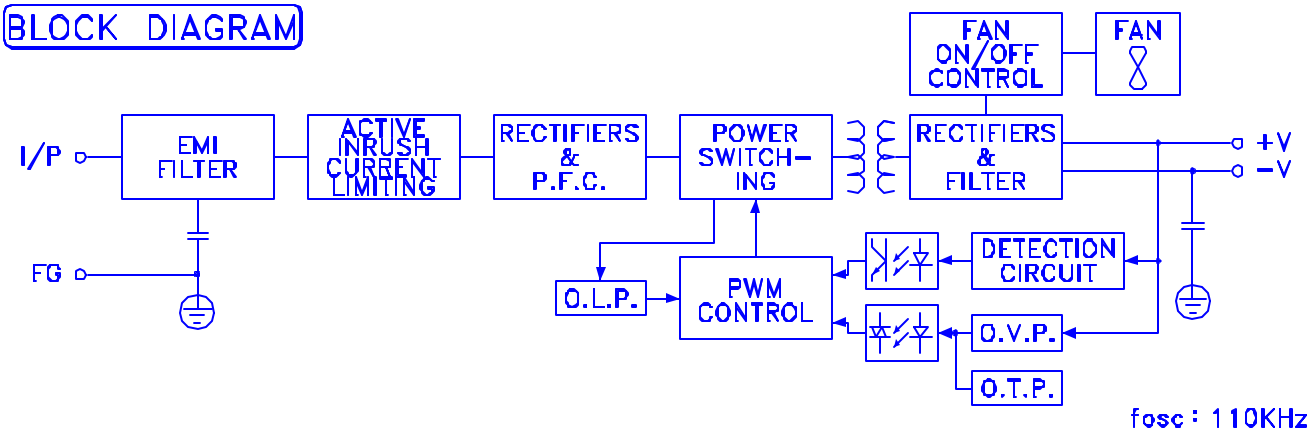
- .LOW COST, HIGH RELIABILITY
- .COMPACT SIZE, LIGHT WEIGHT
- .COOLING FAN ON/OFF AUTOMATICALLY
- .100% FULL LOAD BURN-IN TEST
- .INTERNATIONAL AC INPUT RANGE
- .105◦C OUTPUT CAPACITOR
- .BUILT IN PFC CIRCUIT
- .BUILT IN EMI FILTER, LOW RIPPLE NOISE
- .HIGH EFFICIENCY, LOW WORKING TEMPERATURE
- .SOFT-START CIRCUIT, LIMITING AC SURGE CURRENT
- .SHORT CIRCUIT, OVERLOAD, OVER VOLTAGE, OVER TEMP. PROTECTED

MODEL / SPECIFICATION	SP-300 -5	SP-300 -7.5	SP-300 -12	SP-300-13.5	SP-300 -15	SP-300 -24	SP-300 -27	SP-300 -48
DC OUTPUT VOLTAGE	5V	7.5V	12V	13.5V	15V	24V	27V	48V
OUTPUT V. TOLERANCE	±2%	±2%	±1%	±1%	±1%	±1%	±1%	±1%
OUTPUT RATED CURRENT	50A	34A	24A	21A	19A	12.5A	11A	6.25A
OUTPUT CURRENT RANGE	0-50A	0-34A	0-24A	0-21A	0-19A	0-12.5A	0-11A	0-6.25A
RIPPLE & NOISE (Vp-p)	150mV	150mV	150mV	150mV	150mV	150mV	200mV	240mV
LINE REGULATION	±0.5%	±0.5%	±0.3%	±0.3%	±0.3%	±0.2%	±0.2%	±0.2%
LOAD REGULATION	±1%	±1%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
DC OUTPUT POWER	250W	255W	288W	285W	285W	300W	297W	300W
EFFICIENCY	75%	80%	83%	83%	83%	85%	86%	85%
DC VOLTAGE ADJ.	4.5-5.7V	6-9V	10-13.2V	12-15V	13.5-18V	20-26.4V	26-32V	41-56V
INPUT VOLTAGE RANGE	88~264VAC 47~63Hz; 124~370VDC							
AC CURRENT	4A/115V 2A/230V							
POWER FACTOR	0.95/100~240VAC							
INRUSH CURRENT	18A/115V 36A/230V							
LEAKAGE CURRENT	<1mA/240VAC							
OVERLOAD PROTECTION	105~135% TYPE:PULSING HICCUP SHUTDOWN RESET:AUTO RECOVERY							
OVER VOLTAGE PROTECTION	5.75-6.75V	9.4-10.9V	13.8-16.2V	15.5-18.2V	18-21V	27.6-32.4V	33.7-39.2V	57.6-67.2V
FAN CONTROL, O.T.P.	RTH1 or RTH2>=50◦C FAN ON, <=45◦C FAN OFF, >=70◦C OUTPUT SHUTDOWN							
TEMP. COEFFICIENT	±0.03% / ◦C (0~50◦C)							
SETUP, RISE, HOLD UP TIME	1.5s, 50ms, 20ms							
VIBRATION	10~500Hz, 2G 10min./1cycle, PERIOD FOR 60min. EACH AXES							
WITHSTAND VOLTAGE	I/P-O/P:3KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC							
ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:500VDC / 100M Ohms							
WORKING TEMP., HUMIDITY	-10◦C~+50◦C(REFER TO OUTPUT DERATING CURVE), 20%~90% RH							
STORAGE TEMP., HUMIDITY	-20◦C~+85◦C, 10%~95% RH							
DIMENSION	215*115*50mm CASE:912							
WEIGHT	1.2Kgs							
SAFETY STANDARDS	UL1950, TUV EN60950 APPROVED							
EMC STANDARDS	CISPR22 (EN55022), IEC1000-4-2,3,4,5,6,8,11 IEC1000-3-2 VERIFICATION							

NOTE :
1. ALL PARAMETERS ARE SPECIFIED AT 230VAC INPUT, RATED LOAD, 25º C 70% RH. AMBIENT.
2. TOLERANCE GINCLUDE SET UP TOLERANCE, LINE REGULATION, LOAD REGULATION.
3. RIPPLE & NOISE ARE MEASURED AT 20MHz BY USING A 12" TWISTED PAIR TERMINATED WITH A 0.1uF & 47uF CAPACITOR.
4. LINE REGULATION IS MEASURED FROM LOW LINE TO HIGH LINE AT RATED LOAD.
5. LOAD REGULATION IS MEASURED FROM 0% TO 100% RATED LOAD.
6. C3,4,41,63 MUST BE REMOVED.
7. REFER TO OUTPUT DERATING CURVE VS INPUT VOLTAGE.

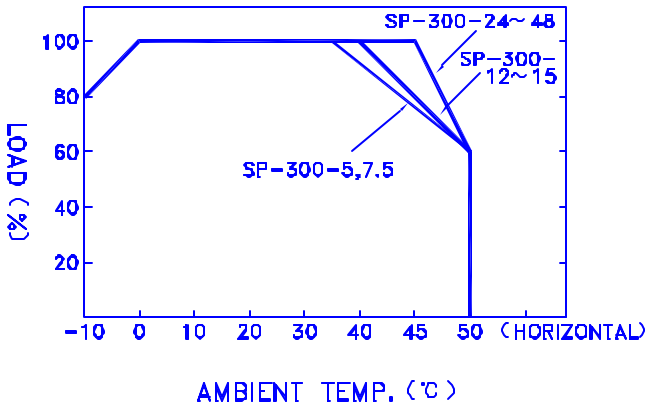
2001-07-12

BLOCK DIAGRAM

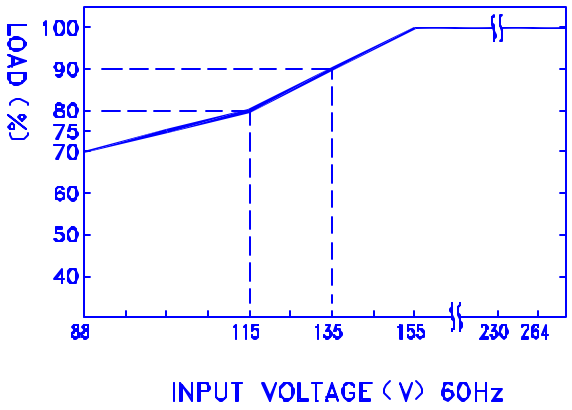


fosc : 110KHz

OUTPUT DERATING VS Ta



OUTPUT DERATING VS INPUT VOLTAGE



DIMENSION (mm)

- CASE : 912
- TERMINAL PIN NO. ASSIGNMENT
  - PIN 1,2 : AC INPUT
  - PIN 3 : FG ⏚
  - PIN 4,5,6: DC OUTPUT -V
  - PIN 7,8,9: DC OUTPUT +V